Amendments to the Specification:

Please amend the specification as follows:

Please add the following two new paragraphs after the second full paragraph on page 19, which ends with "...of the nanowhisker" and before the last paragraph on page 19, which starts with "The skilled practitioner":

Referring to Figure 11, this shows schematically an extremely small LED capable of single photon emission. Single photon emission is of importance, for example for quantum photography or detection of individual molecules of molecular species. A whisker 150 has anode and cathode outer regions 152 of indium phosphide either side of an inner region 156 formed of indium arsenide, so as 15 to define a quantum well. Regions 152 are connected to respective anode and cathode electrical contacts, formed as metallisation areas 158. In contrast to planar devices, where because of the need for lattice matching and for relieving mismatch strain, only certain wavelengths are possible, an important point of this embodiment is that the wavelength of the LED is fully variable since the materials making up the diode may be of any desired composition to achieve a desired wavelength of emission, since lattice mismatch is accommodate by radial outward bulging of the whisker. Since the materials may be stoichiometric compositions, the wavelength is continuously variable across the range from 1.5ev to 0.35ev. A one-dimensional structure requires much less processing than prior art layered structures and is made by a self-assembly process, with the whole structure between the electrical contacts. If a laser construction is required, Fabry Perot (FP) cleavage planes 159 are formed spaced an appropriate distance apart. As an alternative, regions 159 are formed as mirrors comprising superlattices. The superlattices may be formed as alternating sequences of InP/InAs, the sequence alternating over segments of only a few lattice planes, as is known to those skilled in the art.

LEDs, lasers, and other micro cavity structures are often fabricated with gallium nitride (GaN). Whilst nitrides have a number of advantages, particularly in optics, problems with nitrides are that firstly they are filled with dislocations and that secondly there is a lack of suitable substrates (sapphire being one commonly used substrate). Whiskers can be made with defect-free nitrides, and there is not a problem of lattice matching to a substrate. A

regular FP laser can be made, with the structure of Figure 11, with dimensions less than 300nm, preferably of the order of 100nm. It is a bottom up 5 structure, which is well suited to reading DVDs and writing thereto. Nitride systems are quite well suited for whisker growth.